POPULATION SERVED BY COMMUNITY DRINKING WATER SYSTEMS VIOLATING HEALTH-BASED REQUIREMENTS

What does the indicator tell us?

This indicator displays the population provided water in 1994 by community water systems that violated one or more of the health-based requirements during that year. By tracking drinking water violations, the relative risk to humans of exposure to harmful levels of contaminants in drinking water can be illustrated. In 1994, more than 45 million people (19 percent of the population) were served by community drinking water systems that violated health-based requirements at least once during the year. This measure is a "rough cut" indicator of potential exposure to harmful levels of contaminants that have the potential to adversely affect public health. This indicator does not illustrate the persistence of contaminants in drinking water or their level above the violation.
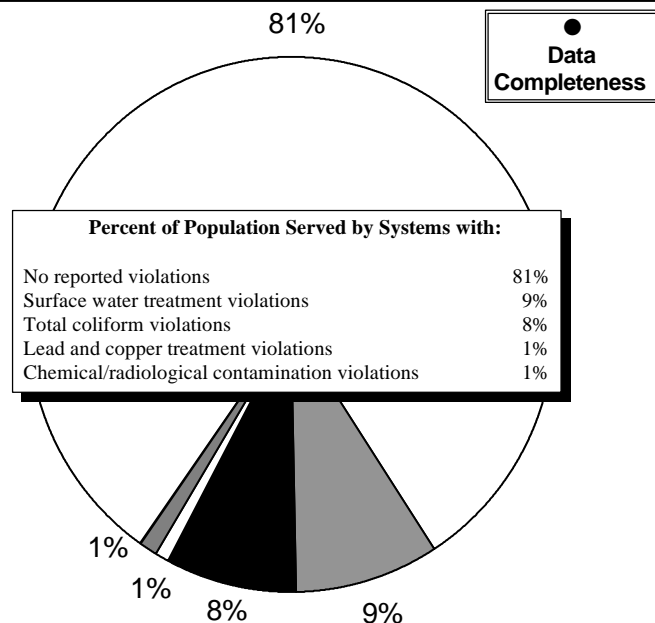
How will the indicator be used to track progress?

EPA and the states regulate approximately 200,000 public drinking water systems that serve more than 240 million people. Public water systems are defined as systems that provide piped water for human consumption to at least 15 service connections or serve an average of at least 25 people for at least 60 days each year. Approximately 60,000 of these water systems are known as community drinking water systems—systems that provide water to the same population year-round. The remaining 120,000 are noncommunity water systems that provide drinking water for nonresidential use (e.g., workplaces, schools, restaurants).

The concentration of contaminants in drinking water provided by water systems to consumers is strictly controlled by standards established to minimize or eliminate risk to human health.

Under the 1974 Safe Drinking Water Act and the 1986 Amendments, EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption. These limits are known as Maximum Contaminant Levels (MCLs). For some regulations, EPA establishes treatment techniques in lieu of an MCL to control unacceptable levels of contaminants in water. In general, these standards or limits are referred to as health-based requirements and they address several areas including surface water treatment, total coliform, lead and copper treatment, and chemical/ radiological contamination.

INDICATOR 1: Population Served by Community Drinking Water Systems Violating Health-Based Requirements

81%

● Data Completeness

Percent of Population Served by Systems with:

No reported violations	81%
Surface water treatment violations	9%
Total coliform violations	8%
Lead and copper treatment violations	1%
Chemical/radiological contamination violations	1%

1%

1%

8%   9%

Note: As many as one-fourth of the water systems did not complete all required monitoring. The compliance status of some of these could not be assessed from reported data. 243 million people were served by community drinking water systems in 1994

Source: State data in EPA Safe Drinking Water Information System, 1994

Proposed Milestone: By 2005, the population served by community water systems in violation of health requirements will be reduced from 19 to 5 percent.

When violations of health-based requirements occur, water systems are compelled to remove the contaminants or face penalties under EPA and state regulatory programs. More than 80 percent of the population is served by community water systems that reported no violations of drinking water health-based requirements during fiscal year 1994. EPA plans to use the newly developed Safe Drinking Water Information System (SDWIS) to report on the number and types of violations reported from public water systems.

The Agency also regulates how often public water systems monitor their water for contaminants and report the monitoring results to the states or EPA. Generally, the larger the population served by a water system, the more frequent monitoring and reporting are required. In addition, EPA requires PWSs to monitor for unregulated contaminants to provide data on occurrences for future regulatory development. EPA also requires PWSs to notify the public when they have violated any of the regulations.

What is being done to improve the indicator?

Data quality and the process used to report on drinking water system regulatory compliance are critical factors in determining the quality of this indicator. The current data quality can be improved for many states. The Government Accounting Office and EPA have concluded that the overall rate of noncompliance is understated.

In an effort to improve the data used by this indicator, EPA and the states are jointly pursuing a modernization initiative to upgrade and improve their drinking water information systems. EPA is replacing the Federal Reporting Data System with SDWIS. States are now testing the first components of SDWIS, which will improve both data quality and reporting of violations. With the cooperation of the states, EPA will be able to use SDWIS to improve the oversight and management of drinking water programs.

The objective of the SDWIS modernization is to improve the accessibility and quality of the drinking water data that EPA and states provide to the public. The data available through SDWIS might allow better and more targeted measures of the occurrence of contaminants in drinking water by providing information on the type of

contaminant, the duration of occurrence, and the degree to which the maximum contaminant level was exceeded.

What is being done to improve conditions measured by the indicator?

EPA currently has drinking water standards in place for 81 contaminants, and several major   new regulatory actions are in progress. EPA's drinking water program has promulgated standards designed to protect people from drinking water contaminated by fecal coliform, organic and inorganic chemicals, lead and copper, radionuclides, and by-products from water treatment chemicals. As part of the Safe Drinking Water Act reauthorization process, EPA has identified activities to address the major issues   facing the drinking water program today:

- *Building State Capacity to Implement Programs*— Eliminating the gap between needs and funding by increasing federal grants while encouraging states to seek alternative financing.

- *Revising the Mandate to Add 25 New Standards Every 3 Years*—Reducing the number of regulated contaminants to allow EPA to focus on those contaminants which pose real, known public health risks.

- *Enacting a Source Water Protection Program*— Allowing states to ensure drinking water quality by protecting the water at the source, thereby reducing the amount of expensive treatment required.

- *Addressing Problems Facing Small Systems*— Reducing the regulatory burden on small water systems and providing support for building viable water systems.

For More Information:

Water Environmental Indicators
EPA Office of Water
401 M Street, SW
Mail Code 4503F
Washington, DC 20460
(202) 260-7040 phone
(202) 260-1977 fax
Internet: http://www.epa.gov/OW/indic